

Recovery Plan Action Status

Plan Name: Granite Outcrop Plants (3 spp.)

Plan Status: Final

Plan Date: 07-Jul-93

Lead Agency: USFWS

Lead Office: Georgia Ecological Services Field Office

(6706)
613-9493)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Little amphianthus (Amphianthus pusillus), Black spored quillwort (Isoetes melanospora), Mat-forming quillwort (Isoetes tegetiformans)	1	1	Improve protection of publicly owned populations	Ongoing Current	FY 1995 - FY 1999	FY 2008	U.S. Fish and Wildlife Service, Endangered Species Division, Georgia Department of Natural Resources, County, South Carolina Wildlife and Marine Resources Department , USFWS Regional Office 4, Stone Mountain State Park	Management: Planning	Internal Field Assistance	** If 'Responsible Parties' column contains CO - County agencies responsible for administration of Mt. Arabia Park or Clinton Nature Preserve. Costs undetermined
Little amphianthus (Amphianthus pusillus), Black spored quillwort (Isoetes melanospora), Mat-forming quillwort (Isoetes tegetiformans)	3	10	Educate public about species	Ongoing Current	FY 2008	FY 2011	U.S. Fish and Wildlife Service, Endangered Species Division, The Nature Conservancy, Georgia Department of Natural Resources, Center for Plant Conservation, County, USFWS Regional Office 4, Stone Mountain State Park	Other: Information and Education	Internal Field Assistance	
Little amphianthus (Amphianthus pusillus), Black spored quillwort (Isoetes melanospora), Mat-forming quillwort (Isoetes tegetiformans)	1	2	Seek landowner cooperation	Ongoing Current	FY 1995 - FY 1999	FY 2100	U.S. Fish and Wildlife Service, Endangered Species Division, The Nature Conservancy, Georgia Department of Natural Resources, Alabama Natural Heritage Program , South Carolina Wildlife and Marine Resources Department , USFWS Regional Office 4	Management: Land Use	Internal Field Assistance	Intensive effort for 2 years to make contact with landowners, Need to make contact with timber companeis.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Little amphianthus (Amphianthus pusillus), Black spored quillwort (Isoetes melanospora), Mat-forming quillwort (Isoetes tegetiformans)	1	3	Enforce laws protecting species	Ongoing Current	FY 1995 - FY 1999	FY 2100	U.S. Fish and Wildlife Service, Endangered Species Division, Georgia Department of Natural Resources, USFWS Regional Office 4	Other: Law Enforcement	Labor type not yet selected	
Little amphianthus (Amphianthus pusillus), Black spored quillwort (Isoetes melanospora), Mat-forming quillwort (Isoetes tegetiformans)	1	4	Preserve genetic stock	Ongoing Current	FY 1995 - FY 1999	FY 2100	U.S. Fish and Wildlife Service, Endangered Species Division, Georgia Department of Natural Resources, Center for Plant Conservation, USFWS Regional Office 4	Research: Propagation	Contract	Isoetes has been collected from Heggis Rock, Camp Meeting Rock and Eatonton Outcrop and are in indoor cultivation at the Atlanta Botanical Garden and the Georgia Botanical Garden (Jennifer Ceska, Botanist, Georgia Botanical Garden pers. comm. June 2006). Isoetes melanospora has been difficult to maintain in long term cultivation. Isoetes tegetiformans is being cultivated by the North Carolina Botanical Garden, as part of the Center for Plant Conservation's National Collection of Endangered Plants. Amphianthus pusillus is not known to be in cultivation by any horticultural or conservation institution.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Little amphianthus (Amphianthus pusillus), Black spored quillwort (Isoetes melanospora), Mat-forming quillwort (Isoetes tegetiformans)	2	6	Monitor populations	Complete	FY 1995 - FY 1999	FY 2100	U.S. Fish and Wildlife Service, Endangered Species Division, Georgia Department of Natural Resources, Alabama Natural Heritage Program , South Carolina Wildlife and Marine Resources Department , USFWS Regional Office 4	Research: Population Surveys	Internal Field Assistance	At least 14 sites have not been monitored since the recovery plan.
Little amphianthus (Amphianthus pusillus), Black spored quillwort (Isoetes melanospora), Mat-forming quillwort (Isoetes tegetiformans)	2	7	Search for additional populations	Ongoing Current	FY 2010	FY 2016	U.S. Fish and Wildlife Service, Endangered Species Division, Georgia Department of Natural Resources, Alabama Natural Heritage Program , South Carolina Wildlife and Marine Resources Department , USFWS Regional Office 4	Work type not yet selected	Labor type not yet selected	
Little amphianthus (Amphianthus pusillus), Black spored quillwort (Isoetes melanospora), Mat-forming quillwort (Isoetes tegetiformans)	2	8	Reestablish and/or augment populations	Not Started	FY 2009	FY 2016	U.S. Fish and Wildlife Service, Endangered Species Division, Georgia Department of Natural Resources, Center for Plant Conservation, Alabama Natural Heritage Program , South Carolina Wildlife and Marine Resources Department , USFWS Regional Office 4	Acquisition: Easement, Acquisition: Exchange, Acquisition: Lease, Acquisition: Management Agreement	Internal Field Assistance	Contingent on other studies, need to acquire suitable habitat.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Little amphianthus (Amphianthus pusillus), Black spored quillwort (Isoetes melanospora), Mat-forming quillwort (Isoetes tegetiformans)	2	9	Investigate and implement appropriate management	Ongoing Current	FY 2006	FY 2016	U.S. Fish and Wildlife Service, Endangered Species Division, Georgia Department of Natural Resources, County, Alabama Natural Heritage Program , South Carolina Wildlife and Marine Resources Department , USFWS Regional Office 4, Stone Mountain State Park	Work type not yet selected	Labor type not yet selected	Cost to be determined